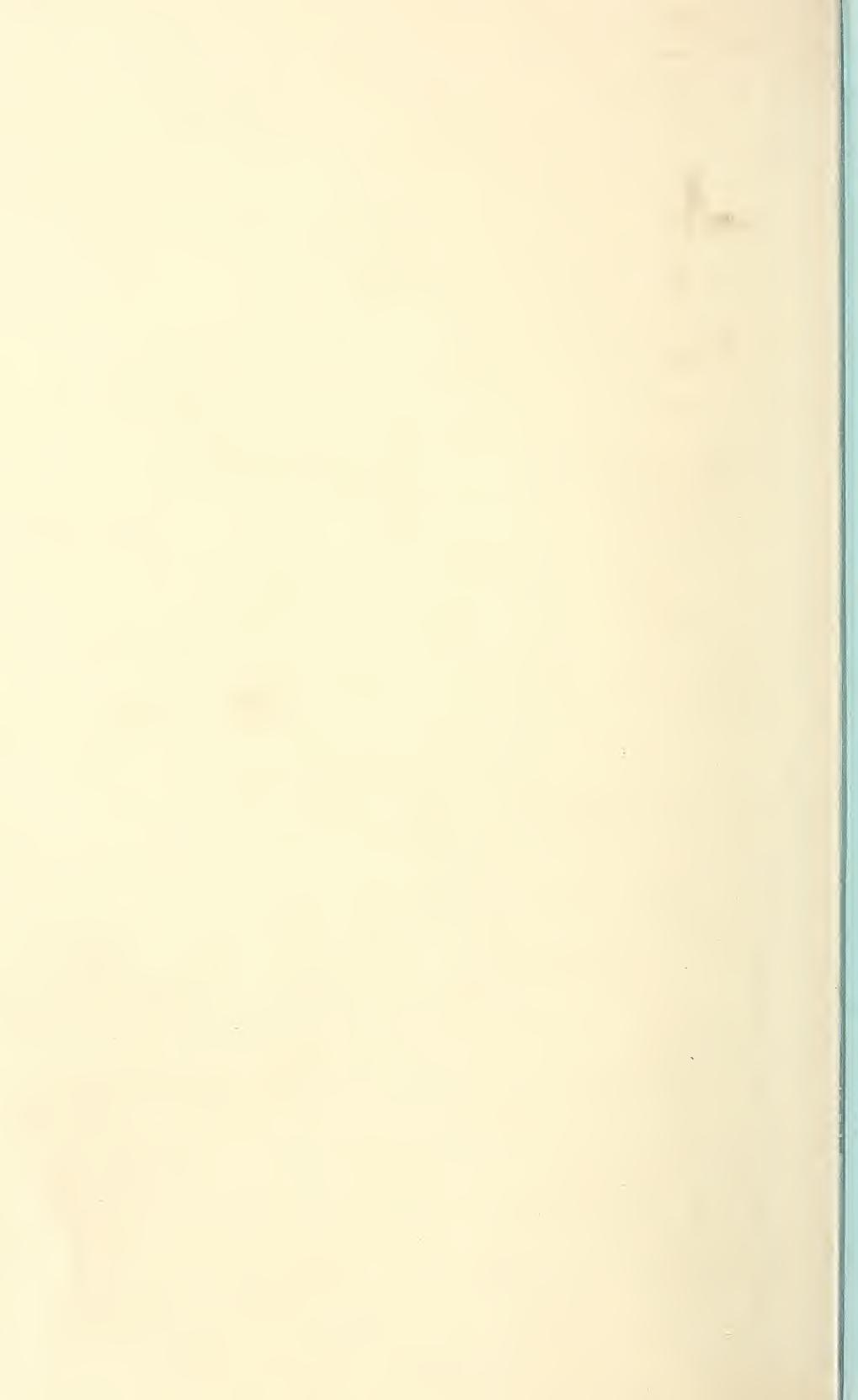


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INDIAN RIVER NURSERIES

ESTABLISHED 1886



FAMILY AVOCADO.

Avocado Catalogue 1916

JOHN B. BEACH, Proprietor

West Palm Beach, Palm Beach County, Florida

DADE LUMBER COMPANY

West Palm Beach

Fort Lauderdale

L U M B E R :: AND :: B U I L D I N G M A T E R I A L

**We Carry Everything Needed in
The Construction of Buildings**

Turned Work, Brackets, Windows and Doors.
Special Mill Work Made From Details. Roofing
and Building Papers, Fruit and Vegetable Crates,
Wraps and Nails.

CATALOGUE OF

INDIAN RIVER
NURSERIES

ESTABLISHED 1886

GRAFTED AVOCADOS AND EAST
INDIAN MANGO TREES

OUR SPECIALTY

West Palm Beach, Palm Beach County, Florida

JOHN S. BEACH, Proprietor

TERMS OF SALE

Terms cash with order if for immediate shipment; if for future delivery 25 per cent, balance at time of shipment.

After delivering goods to carriers we cannot hold ourselves responsible for any loss or injury to trees or plants which have been carefully packed and shipped; but we shall do everything in our power, if any loss should occur, for the protection and recovery of our customer's property. If any mistakes are made in filling orders, we shall carefully rectify the same, but must respectfully request a prompt notification on receipt of goods.

In case of any error on our part it is mutually agreed that we shall not be held responsible for a greater amount than the purchase price.

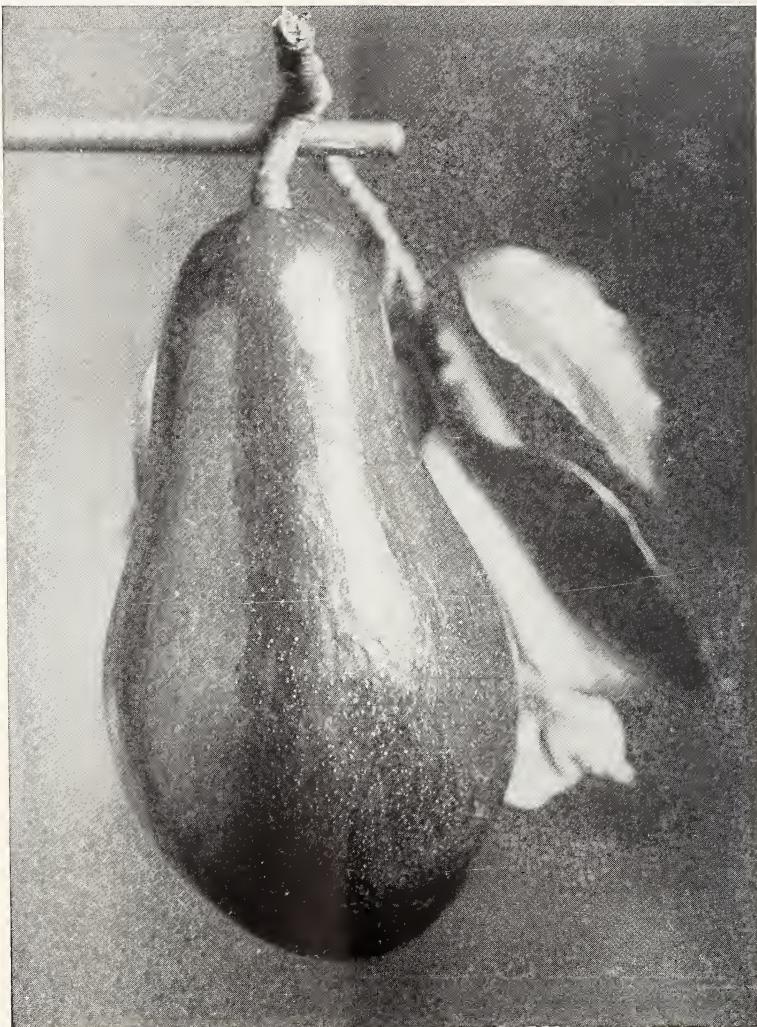
ADVICE TO GROWERS

In planting trees in Dade, Palm Beach and St. Lucie counties, experience has taught me certain things of value to customers, and I want to give a few hints on this line. In planting citrus trees never plant on mounds, as practiced in some localities farther north, **provided you have proper drainage**. In fact, on high, coarse, thirsty sand, setting an inch or two **Deeper** is actually beneficial. Make a basin around the tree three feet in diameter, to hold several buckets of water, and mulch heavily with tobacco stems for six inches about the trunk. Outside of this any sort of mulching can be used, but it must admit water readily and give plenty of shade. Don't be afraid to use **Plenty** of water; you can't use too much down here. The **More** you water the first year, the better grove you will have at the end of five years.

The above applies, of course, only to well drained land.

In planting Mangos, Avocados—in fact almost anything else—always plant from two to six inches deeper than they originally grew, and mulch in same manner. A very good way is to make a hole several feet deep, and fill it half full with some well rotted compost, then plant and place a barrel (minus both heads) in the hole about the tree to keep the hole from filling in, and protect from the wind while young.

In places where yellow subsoil appears at a depth of one to four feet, a good plan is to dig down to this and fill up with yellow soil taken from some convenient place so that your tree is set in yellow soil all the way. Where compost is not available, a little bone meal mixed thoroughly with soil and allowed a few weeks to decay answers very well with the tobacco stem mulch to complete the fertilizer.



FAMILY AVOCADO.

Tropical Fruits

Avocado

or Alligator Pear (*Persea Gratissima*)

This tree is the greatest money producer for South Florida, and the people of Southern California have gone wild over it, even though they have to send to Florida for seed, grafts and trees. It yields as heavily and bears as early as the grapefruit, under identical conditions of soil and culture, and the value of its crop is about five times the market value of the latter. Avocados after November 1st readily bring \$3.00 per dozen, and after December 1st, \$6 per dozen wholesale f. o. b. Last year they brought \$30 to \$34 per box f. o. b. around January 1st, and no chance to supply demand at those prices, as everybody had sold their crops before Christmas for \$20. Even Havana, Cuba, took a good many boxes at the latter figure.

Moreover it is not only a fruit to tickle the palates of the rich, it is by far the most nutritious fruit (aside from nuts) grown, and will always find a ready market among the working classes, and there will never be a glut, as after November it is a splendid keeper and shipper. Following analyses made by the Agricultural Department in 1902 show that it stands in nutritive value between milk and eggs.

This analysis was published in the Florida Experiment Station Report, 1902, and published in the United States Department of Agriculture Bulletin 77.

	Avocado	Per cent.
Water	72.8	
Protein	2.2	
Fats	17.3	
Carbohydrates	4.4	
Crude fiber	1.4	
Ash	1.9	

Milk (Cow)

Water	87.0
Protein	3.3
Fats	4.0
Carbohydrates	5.0
Ash	.7

Eggs (Whole)

Water	73.7
Protein	14.8
Fats	10.5
Ash	1.0



SEVEN-YEAR-OLD FAMILY AVOCADO AT WEST PALM BEACH.



UNITED LITHO. & PTO. CO., ROCHESTER, N. Y.

Plate 227

TRAPP AVOCADO



TWELVE-YEAR-OLD TRAPP AVOCADO AT *WEST PALM BEACH.



THIS PHOTO WAS TAKEN FROM ABOVE TREE.
59 FRUIT ON THIS LIMB.

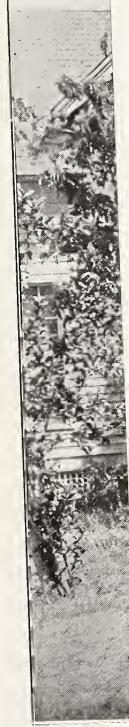
The Avocado can be eaten by the most delicate person, and those who suffer from stomach or intestinal troubles find it the best food for their physical condition. When ripe the fruit will fall from the tree, though still hard, but in two or three days it softens to the consistency of hard butter—when it is ready to eat. The meat is yellow inside, shading to green on the outside, and its flavor was aptly described by a farmer's wife from Illinois, who, on tasting her first fruit, remarked, "It is between a cocoanut and a mush-melon." It has a delicate nutty flavor, very pleasing and can be eaten plain with a little salt as a vegetable, or with cream or wine and sugar. Its favorite role is a basis for salad, in which position it stands in a class by itself. Nothing will take its place, as soon as it is once known. I have discarded the usual method of budding in propagating my Avocados. I insert a graft as soon as the seed sprouts so that the entire growth of the sprouting seed is made in the graft. By this method a tree of much greater vigor is secured, combining the vigor of the seedling with the qualities of the budded tree.

The great thing about Avocado trees is, if possible, to plant the seed where you want the tree to grow, and never disturb it, as all the old settlers know. By my method of grafting as soon as the first sprout leaves the seed, the first leaf made is from the graft, and as the seed is in a box, every rootlet it makes is undisturbed when you plant it out in the grove. By the time the top has attained the standard size, (15 to 25 inches), the roots will have filled the box, and the tree must be set in the grove at once, to obtain maximum results. In my opinion, the old method, of planting seed in open ground, budding like a citrus nursery then cutting off the top and growing a new one from the bud, then digging up and establishing in a box, produces a stunted tree, as compared with seed-grafting.

Culture

Avocados being tropical trees must be protected from frost while young in Florida, but bearing trees two feet in diameter prove that they are fully at home with us when once grown. Unless land is low, it is best to set trees in a basin six inches deep and 18 inches across. This can be filled up when the trees are two years old.

It is always a good plan to prepare the holes several months ahead if possible. In rocky land always loosen it up with a small charge of dynamite to a depth of several feet, and fill the hole with scrapings of top soil. In sandy land with yellow or red subsoil, with a white or light stratum between the top soil and the subsoil, dig down to subsoil and remove this intermediate stratum, and fill up with subsoil or topsoil. Make holes $2\frac{1}{2}$ to 3 ft. across, and if possible mix in a bushel or more of stable manure in the hole, with a pound or two of Thomas slag. In case this cannot be obtained, use 5 or 6 pounds Beach's Wartime Special (advertised on back of catalogue) or castor pomace, with slag (the wartime mixture will not require this addition). From 5 to 10 weeks will be sufficient for this to mellow before planting, according to the amount of rainfall, and the process may be hastened by digging it over now and then to admit air.





This Tree is 5 Ft. in Diameter, With Height of 40 Ft. and Spread of 60 Ft. Average Yield 2,500 Fruit, Weighing
1½ Pounds Each. It Belongs to B. C. Bass, of Dunedin, Florida, and is 50 Years Old.

Probably the Largest Tree in the State. Was Cut Back in 1895.

In planting, first remove the bottom of the box and then, after placing the tree in the hole, pull the sides apart and remove them. This lessens danger of attacks from woodlice. Keep well watered during the first year, and after that trees will take care of themselves. Culture is the same as for citrus trees. The Avocado will thrive well on organic nitrogen, and horse, cow or fowl manure is good food for it.

When planted you should mulch with plenty of tobacco stems. This is to keep off woodlice, and to supply the needed potash. Bear in mind that the trees must be kept properly moist during the first year, while their roots are getting spread in the soil, and on high land in dry weather in summer 3 buckets per week is often required. No expensive irrigating plant is needed, as a mule and wagon will answer, and can be easily moved elsewhere after the first year, when it is no longer needed.

When planting in June, July or August, it is advisable to shade. A good plan is to drive four plastering lath about a foot in the ground around the tree in the shape of a rectangle, four feet east and west and two feet north and south. Nail two lath and two half lath between the tops and stretch a strip of burlap, old grain or fertilizer sacking, on top, and tack it firmly. This will furnish a partial shade from 9 a. m. to 3 p. m.

In some localities young trees are quite subject to attacks of fungus which makes black spots on the leaves, and often girdles the stem, sometimes killing the tree. To prevent this it is well to spray with some fungicide, monthly in wet weather. Following will prove convenient and efficacious: Dissolve 8 pounds bluestone in 50-gallon barrel of water, and 10 pounds of sal soda (sodium carbonate) in another 50 gallons; keep covered to prevent evaporation, and mix in equal parts as needed. Apply the same day it is mixed. In this way you may have your solution fresh whenever you want it and so long as kept separate they will keep for years.

The Avocado is seldom troubled with scale, but the Guava fly has been known to attack it. Usually the tree drops its leaves, and that puts an end to the trouble, new foliage coming out clean of insects. This insect closely resembles the whitefly, but it never attacks citrus trees—the wild pawpaw being its chief food. It does little harm to the Avocado. On the whole, the Avocado has not one-fourth the enemies that the grapefruit has in Florida, and the fruit brings about twice as much in the market.

Any good scale destroyer may be used for the guava fly, or any scale which may chance to attack the trees. I have adopted Target brand, as most convenient. But the best plan is to feed your trees well, and if given a proper start the first year, by supplying sufficient moisture the chances are that neither scale nor fungus will trouble them again. Bear in mind that the Avocado is a gross feeder, and can make good use of about twice as much fertilizer as citrus trees of same age. While they will live and thrive on less, they will repay you many fold for the extra food in growth and fruit. A good plan is to give them the same commercial fertilizer you

would your citrus trees, and in addition an equal value of manure or castor pomace. In May, 1914, some new settlers near here planted groves, on spruce-pine land. All planted some of my seed-grafted trees, and received in substance the foregoing advice from me. Being new to Florida they had no preconceived ideas of their own on the subject, and followed my advice pretty closely. When planted these trees were about 16 or 18 inches tall and were from seed planted in September, 1913, and grafted the following November. June, 1915, I visited the groves and found the trees standing from 4 to 5 ft. high, with a spread of 3 to 4 ft., and nearly one-third of them holding fruit, some as many as 20. Now I do not advise allowing a tree to hold more than one or two at most the first year, and believe it better to pick them all off, as maturing a crop so young, generally stunts and injures the tree. But I had a tree of the Family variety which, planted out in November, matured 23 fruit the second July, and it did not injure the tree except to cause it to lose about a year's growth.

So far we have found no insect which attacks both the Avocado and citrus family. As a result great advantage can be derived by planting a grove with the two in alternation. Thus each citrus tree will be surrounded by four immediate neighbors which are immune to any insects which may attack it, forming a sort of insulation against the spread of enemies from tree to tree. The same of course will be true of each Avocado tree. This is a matter which will immediately appeal strongly to all experienced fruit growers. Moreover the roots seem to agree well in the soil with each other.

All tropical trees while young are tender, and it is best to have an empty barrel standing beside each tree the first winter, ready to be placed over it for protection cold nights. The second winter a frame can be rigged up over which a cover of old fertilizer sacks sewed together may be thrown cold nights. While it may be necessary only once in eight or ten years, it is a good insurance policy and costs little.

Varieties

TRAPP. Ripens in the fall and winter. Fruit round and green in color. No space between pulp and seed. Quality unsurpassed.

Fruit may be cut and shipped any time after Nov. 1st, but is generally marketed in December when other varieties are gone. Some fruit will often hang on till March.

During the latter part of November, 1914, this fruit was selling for from \$10 to \$12 a crate. On December 18 it was bringing \$20 per crate.

This is the variety for extensive planting for shipping.

FAMILY. Matures fruit during July and August. Sometimes seedless; seed, if any, small. Fruit long, pear-shaped, being very beautiful. Color green, changing to purple when ripe; flavor very delicate. Specially recommended for home use.

ESTELLE. Extra early, coming in July and sometimes late June. Oval; color, green sometimes yellowish, smaller than Family, but with a



FOUR-YEAR-OLD TRAPP AVOCADO IN LEE COUNTY. 74 PEARS.

tight seed in most cases, which makes it a much better shipper, as the Family invariably has a loose seed.

POLLOCK. Ripens in September and October. Weight two to four pounds; seed small; color green; pear-shaped, with a thick neck; flavor very rich and nutty; best of all. Coming in the height of the season it is not so desirable for a market fruit as earlier or later varieties.

CHRISTMAS RED. A seedling from the Trapp which produces a fruit more oval in form than the parent, mahogany red, shading to purple when ripe, making it desirable as a table ornament. Season November and December. Quality excellent.

GUATEMALA or TAYLOR. This tree has matured two consecutive crops. It does not mature so as to be eatable before February, and hangs on the tree more or less through March and April. Fruit nearly round,



ANOTHER VIEW OF THE FOUR-YEAR-OLD TRAPP AVOCADO.

averaging somewhat smaller than Trapp. Seed small and tight-fitting. Skin rough. Quality very good \$3.00 each (Supply very limited)

TAFT. This belongs to a more frost-resistant type, and is considered the best in California. Will probably succeed wherever the orange does in Florida. Not yet fruited here. Following is description from California growers: "Pear-shaped with green, thick skin; weight, about a pound. The meat is thick, fine grained, rich and nutty, without a trace of fibre, string, or discoloration. The seed is rather under the average size, and is tight in the cavity. A good bearer, vigorous and hardy." Season April, May and June. Price \$2.00 each.

Grafted trees in 5x5x12 inch boxes, except Guatemala and Taft, \$1.50 each, \$15.00 per dozen, \$100 per 100. Special prices on large quantities.

Seedling Avocados in boxes at following prices:
12 to 18 inches, 25c each, \$2.50 per dozen.
18 to 30 inches, 50c each, \$5.00 per dozen.

Concerning the Avocado

In South Florida where we have trees as we have here two feet in diameter, seedling Avocados, one can be sure that they will stand the climate, and we need fear no future competition from colder sections of the state, where grapefruit are still perfectly hardy. Last winter the writer had Trapp Avocados on his trees as late as March 15, and all during the winter they readily brought \$1 each at retail. Had there been any to ship they would have retailed even higher in northern markets, for when once one acquires a taste for Avocados they want them all the year around, every day and often twice or three times a day. People who can afford it will pay almost any price for them when scarce.

I talked with a man from Chicago who said he paid \$1.50 each for them last January.

Then there is another feature which gives the industry a permanent future which no watery fruit like grapefruit or orange can hope for, and that is their food value. In fact one bushel of Avocados possesses more food value than ten bushels of grapefruit, and the intrinsic value is more than ten times as great as citrus fruit. Suppose that the prices on grapefruit should drop as they did last year (and they don't pay to grow at these prices, often not paying to pick and pack) what would the grower do with his product? If the entire crop was manufactured into essential oil, citric acid, and sugar, the market for the two former would be glutted ten times over, and the quantity of sugar obtained would not pay the cost of extracting. Suppose on the other hand the grower was faced with a glutted Avocado market. Every two bushels of his fruit would be worth one bushel of corn for feeding to cattle, hogs or chickens. (In comparing Avocados to shelled corn we must allow 50 per cent for seeds and skin.) Eggs would have to get down below 20 cents per dozen to compete with Avocados as food for the masses in winter time.

One of the great features of this winter Avocado is that coming on in the cool weather it can be shipped and handled much more easily and cheaply than eggs. A friend of mine whose home is in New Jersey and who comes down every winter came earlier than usual this year. He was here while Avocados were still plenty, and they were served regularly at his boarding house. He said that hearing that they are equal to eggs in nutriment, and being accustomed to making his breakfast from eggs and coffee, substituted Avocado for the eggs, and found that it agreed with him and stood by him just the same. Another advantage over eggs as a food which this fruit possesses is that it is much easier on delicate bowels than eggs, which are constipating to some people.

Further than this Avocados are a boon to the dyspeptic, as they are

a food more easily digested than almost any other form of nourishment known. A former apple grower from Washington state, who has sold out and located in this place, told me this fall that he had never been free from indigestion till Avocado season came on here in August. Since then he has made his main diet of this fruit, and has been entirely cured of his trouble. One remarkable feature about this fruit is that all animals realize its food value and relish it. In the West Indies dogs subsist largely upon it and fight over a fruit as they would over a bone. Chickens prefer it to corn, and even cats relish it.

It is the only fruit or vegetable that I have ever known that the average cat will take to on first acquaintance. While it is scarce and only a luxury for the rich it will command fancy prices, but just as soon as the production is sufficient to more than supply this fancy market it will rapidly become a staple article of diet for the masses of the people, and will always sell at very remunerative prices for the producer.—Florida Farmer and Homeseeker.

Following extract from letter of Chas. Montgomery, dated December 11th, 1915, will show how prices are holding up this season so far: "Since December 1st I have bought two crops at \$6.00 per dozen on the tree. I am quoting this fruit at \$30.00 to \$35.00 per crate, and have sold all, with the possible exception of seven crates. I expect to get as much or more money for the rest of them."

Mango

(*Mangifera India*)

The mango, which is the king of tropical fruits, ripens in the summer time and for that reason will never be valuable for planting on a large scale for Northern markets, until refrigeration can be applied from the grove to the consumer.

EXTRACT FROM YEAR BOOK. "The United States Consul at Bombay, William Thomas Fee, in his report for October, 1901, states that in the large shipments of mangos now being sent from India to London the fruit is packed in the cast-off boxes used for shipping oil to India, and that it arrives in good condition. Fruit is kept at a temperature of about 40° Fahrenheit.

"M. Nollet, director of the garden at Martinique, has succeeded in making small shipments from that island to Paris with a loss not exceeding 10 per cent. The fruit was wrapped in soft paper and packed one dozen in a box, the interstices filled with sawdust and the whole placed in cold storage.

"The fruit is usually picked when of full size, but before it has completely ripened, and is placed in shade to complete the process. In some parts of India it is buried in the ground to ripen, as this is supposed to make it sweeter."

For home use and local markets, also for a certain fancy trade, it has no rivals, and everybody should have a dozen or more trees on his plantation. A very good plan is to plant them around an avocado grove as a windbreak, as they stand wind quite well, and the crop is off before the windy season comes on.

Culture is the same as for citrus trees, and they must be fertilized in the same manner, as animal manure or castor pomace would soon give them dieback, like citrus trees. Therefore use only the commercial fertilizer recommended for them, but plant, spray and cover, in fact, treat in all other respects just the same as advised for avocados.

I have spent twenty-five years and many hundreds of dollars in experimenting on the mango, seeds, trees and scions. Experience has taught me that all seedlings are worse than unreliable, and I have ceased to offer them under fancy names.

Scores of different sorts of mango trees have been introduced by the Agriculture Department, as well as by private individuals, and after being fruited for a few years have been gradually dropped from one cause or another. I cut down and regrafted over 60 bearing trees last year, many of which had borne five or six crops of fruit, simply because I considered something else better. Probably the Haden is the most promising variety for general commercial planting, but I would strongly advise everybody to plant a single one each of several varieties for his home consumption. The following are all the varieties I have to offer this year:

BENNETT ALPHONSO. This variety was introduced by the Department and has proven a free bearer and vigorous grower. Quality almost equal to Mulgoba, and flavor rich and spicy. Preferred by some.

ROUND AMINI. This is a very prolific bearer; fruit roundish oval, bright yellow with red cheek. It resembles the finest flavored of any of the old native seedlings more than any other East India variety, but it has no fibre. Has produced six consecutive crops.

LANGRA BENARSI. Kidney shaped; often weighing up to three pounds; flavor rich and spicy; color yellowish green. Price, \$2.00 to \$2.50.

MULGOBA. This is the choicest mango that has as yet fruited in Florida, and has been bearing for 15 or 20 years. It has its own place in the fancy fruit markets in large cities, and we cannot begin to fill the demand. It is not so prolific as some of the other varieties. Weight 12 to 18 ounces; yellow with carmine cheek; aroma abundant, and more delicious than any fruit in the world.

RAJAH, or RAJPURRY. Averages 10 ounces in weight; almost round; yellow with pink cheek; flavor rich and buttery; both flavor and aroma distinct from any other mango; very prolific. Has made seven consecutive crops without a failure.

SUNDERSHA. Most enormously prolific of all; bears at two years old, and never fails to produce all the fruit the tree can hold; seed flat and thin; very valuable when two-thirds to three-fourths grown for chutney or preserves; trees will always set more fruit than they can mature, and when it is partly grown the surplus can be thinned out for cooking, and still leave a full crop to ripen on the tree; weight 24 to 48 ounces. Yellow with red cheek; little or no fibre; rich and meaty; flavor luscious; \$2.00 to \$2.50 each.

HADEN. This is a seedling from Mulgoba, which is very highly prized by some growers, as being almost identical with Mulgoba. It averages handsomer in appearance, a more reliable bearer, and almost as good in quality. Tree is also an exceptionally vigorous grower.

CECIL. A seedling from the Manilla Mango, from Mexico, planted by Mr. Samuel Belcher on his place near Miami. It is long in shape, color yellow, free from fibre and good quality.

CAMBODIANA. Original tree bearing at Royal Palm Nurseries on West Coast. Considered there in same class with our three favorites here (mentioned below) as sure and prolific bearers.

During past seasons when the entire mango crop has been short, and many of the best varieties turned out total failures, there have been three varieties which have borne full crops in spite of the unfavorable conditions which have affected the others. These are Rajpury, Round Amini, and Sundersha. Everybody should have a tree of each in their door yard.

PRICES

Two year old in 5x5x12-inch wooden boxes, 2 to 4 feet tall: \$2 each; \$20 per dozen; \$150 per 100. 15 to 25 inches, \$1.50 each; \$15 per dozen; \$100 per 100.

Seedling mangos in pots or boxes at following prices:
10 to 15 inches tall, 25c each, \$2.50 per doz., \$15.00 per 100.
15 to 30 inches tall, 35c each, \$3.50 per doz., \$25.00 per 100.

These are useful for shade and avenue trees, and produce fruit in abundance which is quite palatable, and excellent for cooking; when green resembles green apples.

ANTHONY BROS.

OUTFITTERS TO MEN

Seven Stores

WEST PALM BEACH,
PALM BEACH,
FORT PIERCE,
DAYTONA, FLORIDA

HOT SPRINGS,
VIRGINIA
WHITE SULPHUR SPRINGS,
WEST VIRGINIA

Only One Quality---the Best

We are satisfied with nothing short of perfection, and stand behind everything we sell with a guarantee of satisfactory service. Our lines are standard:

Hart Schaffner & Marx Clothes

Hanan Shoes

Stetson Hats

Headlight Overalls

These are all great leaders in their lines, and are mentioned as illustrative, in part, of the high standard prevailing in all departments.

If you have not already done so, when in West Palm Beach, Fort Pierce or Daytona, drop in and get acquainted. You will find in each of these stores live, energetic men it will do you good to know, and who will be glad to extend to you the glad hand and a cordial welcome.

USE WARTIME BRAND

FERTILIZERS

FOR ALL KINDS OF TREES

Contains no organic albuminoids, which tend to produce dieback in citrus trees and mangos. Is strongly alkaline, and will sweeten new and low land better than lime or ashes. Is not volatile, so does not waste if spread on surface and exposed to sun and wind, and having no offensive odor may be used under the dining room window *without discomfort*.

No. 1 FOR YOUNG TREES
No. 2 FOR BEARING TREES

E.O. Painter Fertilizer Co.

JACKSONVILLE . . . FLORIDA

We also handle a full line of fertilizers and insecticides of all descriptions. Can make up any special mixture to order. Send for price list.